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**METHODS FOR DETECTING AND QUANTIFYING APNEA USING  
VENTILATORY CYCLE HISTOGRAMS**

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**ABSTRACT**

Subject matter includes methods and devices for detecting and quantifying apnea. One exemplary implementation includes deriving a ventilation related parameter in real-time from a patient, deriving apneic intervals based on the parameter, distributing the apneic intervals as counts on a histogram, and calculating a single data point, such as a centroid, for clustered counts on the histogram. Centroids can be calculated at regular intervals and stored for lengthy periods, such as months, because they occupy very little storage space. A position of a centroid on the histogram can indicate an aspect of the patient's health and changes in the centroid positions over time can be used to detect trend changes in the patient's condition.